

AMENDMENTS:

IN THE TITLE OF THE INVENTION:

Please amend the title of the invention by deleting the present title, and replacing it with the following title, shown in clean form:

--An apparatus for radiating a reference laser beam and utilizing GPS units for installing a pipe--

IN THE CLAIMS:

Please cancel claims 4, 7, and 9.

Please amend claim 8 as follows:

8. (Amended) An apparatus for radiating a reference laser beam for installing a pipe, comprising:

a laser beam radiator capable of rotatably radiating a laser beam;

a first GPS unit for detecting a position of said laser beam radiator to detect a reference position; and

a second GPS unit for detecting a position at which said second GPS unit is arbitrarily placed,

wherein said laser beam radiator has a receiver to receive the data on position obtained by said first GPS unit and said second GPS unit, and an arithmetic means to calculate based on the data on position received from said receiver, and said first GPS unit and second GPS unit have a radio communication unit capable of transmitting the data on respective positions of said first and second GPS units, wherein

said second GPS unit is arbitrarily placed at a first position and its position is detected by said arithmetic means so as to determine the direction of the reference laser beam to be radiated from said laser beam radiator,

said second GPS unit is then moved and placed in the direction of a laser beam radiating from said laser beam radiator as a second position, so that said arithmetic means detects the direction of the laser beam now actually radiating,

said arithmetic means calculates an angle between said first position, which is the direction of the reference laser beam radiated from said laser beam radiator, and said second position, which is the direction of the laser beam now actually radiating, and

said laser beam radiator is rotated to the direction of said second position to said first position based on the angle calculated by said arithmetic means, thereby radiating a reference laser beam and allowing the pipe to be installed along the direction of the radiated reference laser beam.

Please add new claims 10-13 as follows:

10. (New) An apparatus for radiating a reference laser beam for installing a pipe according to claim 8, wherein said second GPS unit comprises a pole.

11. (New) An apparatus for radiating a reference laser beam for installing a pipe comprising:

a laser beam radiator capable of rotatably radiating a laser beam;

said laser beam radiator capable of directing a laser beam to the center of a target by receiving light reflected from the target;

a first GPS unit for detecting a position of said laser beam radiator to detect a reference position; and

a second GPS unit for detecting a position at which said second GPS unit is arbitrarily placed; and

a pole to which said second GPS unit and target are attached,

at least one of said first GPS unit and said pole having a radio communication unit capable of transmitting data on position, a receiver to receive the data on position, and an arithmetic means to calculate based on the data on position received from said receiver, wherein

said pole is arbitrarily placed at a first position and its position is detected by said arithmetic means so as to determine the direction of reference beam to be radiated from said laser beam radiator,

said pole is then moved and placed at a second position between said reference position detected by said first GPS unit and said first position, rotating said laser beam radiator in such a manner as to radiate a laser beam to the center of said target, so that the laser beam radiated from said laser beam radiator can be directed toward the direction to which the reference laser beam is to be radiated, thereby radiating a reference laser beam and allowing the pipe to be installed along the direction of the radiated reference laser beam.

12. (New) An apparatus for radiating a reference laser beam for installing a pipe according to claim 10, wherein the pole to be placed in said first position is the same as the pole to be placed in said second position.

13. (New) An apparatus for radiating a reference laser beam for installing a pipe according to claim 11, wherein the pole to be placed in said first position is the same as the pole to be placed in said second position.